

MODEL PROJECT INFORMATION SHEET

NATIONAL RADIOTHERAPY AND NUCLEAR MEDICINE NETWORK (GHA/6/009)

Introduction

The incidence of cancer is quite high in Ghana and many other developing countries in Africa and Latin America. At the same time, facilities for cancer diagnosis and treatment, including radiotherapy and nuclear medicine, are generally extremely limited in these same regions. This lack of basic capabilities in cancer treatment is of particular concern with regard to cancers that affect women, such as cancer of the breast and cervix, and other treatable cancers such as those of the head and neck.

Ghana with its population of 14.3 million has no facilities for radiotherapy. Patients have to travel abroad at great costs to obtain radiation treatment, when indicated. With the increasing incidence of cancer, the Government has identified the urgent need for establishing radiotherapy facilities which would cater for Ghana and other neighboring countries like Togo, Cote d'Ivoire and Burkina Faso. In response to this situation, a national network of brachytherapy and teletherapy services is proposed for Ghana. These centers are geographically distributed south to north in the center of the country, and will be able to serve not only all regions of Ghana but also neighboring countries.

It is very necessary that the radiotherapy service be provided with the support of Nuclear medicine facilities. Such facility exist at the Korle Bu Teaching Hospital where a radioimmunoassay laboratory capable of carrying out assays of the relevant analytes (eg. Tumor associated antigenes) has been established with the Agency support. It is adequately equipped and has trained staff. In addition, the in vivo nuclear medicine capabilities has also been strengthened by provision of a gamma camera with which tests contributing to the diagnosis and management of cancer can also be done.

It is proposed to establish teletherapy and brachytherapy facilities at the Korle Bu Teaching Hospital, Accra, which will serve Greater Accra, the Eastern and Volta Regions. The second and third phases of the project will be sited at Komfu Anokye Hospital, Kumasi, and the Government Hospital, Tamale. The former will cater for the Ashanti and Northern parts of Ghana, while the latter would serve the Central Western regions of Ghana.

Under the project, the necessary manpower will be trained (e.g. radiotherapists, medical physicists, radiographers, nurses, etc.), while essential items of equipment will be provided. Expert support is envisaged especially at the initial stage of the project. This project would be a model for extending similar facilities to other countries in the region; with possibilities of regional manpower development and training in collaboration with the West African Postgraduate Medical College - a medical body which oversees the development of medical sciences in this region.

Project Plan

Training in radiotherapy, medical physics, radiography, and support services such as nursing will be provided to persons specifically recruited for positions in the three hospitals. An expert mission will review several institutions with established training programmes in radiotherapy and related fields before selecting one to be used for this project. During the first stage of the project, brachytherapy services will be established in all three hospitals, and teletherapy services will be established at Korle Bu Teaching Hospital.

Teletherapy facilities will be added at Komfu Anokye Hospital in Kumasi in the second stage, and to the Government Hospital in Tamale in the final stage.

A collaboration with the World Health Organization in carrying out this project is intended, and discussions toward this end have been initiated. A national steering committee will be established in Ghana to supervise project implementation along with the Agency expert.

National Input

The Government will make available suitable infrastructure to support the model project. Candidates will be identified for training as radiotherapists, medical physicists, radiation technologists, etc., to run the radiotherapy services. In addition to the normal Government subvention for the running costs, it is expected that the project will generate funds to sustain the services, especially after the withdrawal of the Agency's involvement.

Agency Input

The Agency will award fellowships and scientific visits for the training of all cadre of personnel to run the facilities. Some equipment for teletherapy, brachytherapy and dosimetry will be provided as well as expert services to ensure smooth implementation and operation of the project.

The distribution of the required funds over five years of the project is shown below:

1994	1995	1996	1997	1998
\$284 300	\$775 800	\$1 134 000	\$1 232 250	\$132 300

Long-Term Impact

It is expected that the project will significantly improve the quality and capabilities for both curative and palliative radiotherapy of cancer in Ghana and adjacent countries, where such facilities are non-existent at present. Radioimmunoassay facilities will also be established and will be able to provide additional nuclear medicine services. The successful implementation will also encourage other countries in the region to adopt the same approach for the development of their radiotherapy services in order to cope with the rising incidence of cancer.

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